

Division of Waste Management Solid Waste Section

UNIT TYPE:													
Lined MSWLF	X	LCID		YW		Transfer		Compost		SLAS		COUNTY: Davidson	
Closed MSWLF	X	HHW	X	White goods	X	Incin		T&P		FIRM		PERMIT NO.: 29-06	
CDLF	X	Tire T&P / Collection	X	Tire Monofill		Industrial Landfill		DEMO		SDTF		FILE TYPE: COMPLIANCE	

Date of Site Inspection: <u>02/02-03/12</u> **Date of Last Inspection:** <u>08/23-24/11</u>

FACILITY NAME AND ADDRESS:

Davidson County Integrated Solid Waste Management 1242 Old U.S Highway 29 Thomasville, North Carolina 27360

GPS COORDINATES: N: 35.85281 E: 80.17620

FACILITY CONTACT NAME AND PHONE NUMBER:

Charles Brushwood, Solid Waste Director

Office- 336-242-2284 Cell- 336-240-0303

e-mail- charlie.brushwood@davidsoncountync.gov

FACILITY CONTACT ADDRESS:

Same as above

PARTICIPANTS:

Charlie Brushwood, Solid Waste Director

Michael Lankford, Household Hazardous Waste

Angela Jones, Administrative Assistant

Steven Sink, Landfill Supervisor

Jim Gilreath, Landfill Safety Coordinator

Lin Riner, Scale House, County Tire Program

Steve Swaim, Material Recovery Facility, Recycling Coordinator

Mark Pierce, Construction and Demolition Landfill

Jamie Jarrell, Scale House Operator

Richard Harper, Davidson County Solid Waste Enforcement

Rex Buck, Utilities Director

Shawn McKee, N.C. Solid Waste Section

Hugh Jernigan, N.C. Solid Waste Section

PERMIT HISTORY/STATUS OF PERMIT:

Original Permit to Construct issued October 8, 1993: (*Phase 1, MSW Unit*).

Original Permit to Operate issued September 28, 1994: (MSW Unit, Phase 1, Area 3).

Permit to Construct issued February 20, 1995: (MSW Unit, Phase 1, Area 1).

Permit Renewal issued August 21, 1995. (MSW Unit)

Permit to Operate issued March 13, 1996: (MSW Unit, Phase 1, Area 1).

Permit to Construct issued August 18, 1999: (MSW Unit, Phase 1, Area 2, Cell 1).

Permit to Operate issued May 30, 2000: (MSW Unit, Phase 1, Area 2, Cell 1).

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Permit to Operate issued June 22, 2001: (HHW Facility).

Permit to Operate issued November 20, 2001: (C&D Landfill Unit, Phase 1).

Permit Modification issued May 15, 2002: (Mobile Home Deconstruction for C&D Landfill and Alternative Daily Cover for MSW Landfill).

Permit to Operate issued June 24, 2003: (MSW Unit, Phase 1, Area 2, Cell 2).

Permit to Operate issued April 10, 2006: (C&D Landfill Unit, Phase 2).

Permit to Construct issued September 28, 2007: (MSW Landfill, Phase 2 Area 1).

Permit to Operate issued December 8, 2008: (Phase 2 Area 1), (Partial Closure Phase 1, Areas 1&3)

(Closure Modification and Regrading Plan, Phase 1).

Permit to Construct/Operate issued July 18, 2011: (Permit to Construct C&D Landfill, Phase 4) (Permit Renewal to Operate MSW Phase 2, Area 1) (Permit Renewal to Operate C&D Landfill, Area 3)(Operations Plan Modification)

Permit Expiration Date July 18, 2016.

PURPOSE OF SITE VISIT:

Site visit to conduct a comprehensive facility inspection.

STATUS OF PAST NOTED VIOLATIONS:

None

OBSERVED VIOLATIONS

1. Section 2.4.1 of the Operations Plan states a minimum of 1% or <u>one per week</u> of incoming loads at the MSW Landfill are to be inspected. The random inspections for the MSW Landfill during the review period of 10/04/11- 01/25/12 (15 random inspections during 17 weeks) does not meet the minimum requirements as specified in the approved operations plan (see comment No.44).

The scheduling of random inspections should be modified and implemented to assure minimum requirements are being met.

The item(s) listed above were observed by Section staff and require action on behalf of the facility in order to come into or maintain compliance with the Statutes, Rules, and/or other regulatory requirements applicable to this facility. Be advised that pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$15,000 per day may be assessed for each violation of the Solid Waste Laws, Regulations, Conditions of a Permit, or Order under Article 9 of Chapter 130A of the N.C. General Statutes. Further, the facility and/or all responsible parties may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

ADDITONAL COMMENTS

General Information

- 2. The permitted facility consists of a two MSW Landfills (Phase 1, closed and Phase 2, active), Construction and Demolition Landfill, Household Hazardous Waste Collection Facility, Tire Collection Site, White Goods Collection and Processing Facility, a metals collection site, a waste drop-off convenience area for cars and small trucks, a swap shop area, Styrofoam recycling operation, mattress and upholstered furniture recycling operation, household textiles recycling area, electronics recycling site, a drop-off convenience area for selected recyclables, a gas extraction/electric generation facility on the closed Phase 1 MSW landfill, and a Material Recovery Facility for collected recyclables. A closed unlined MSW Landfill (Permit 29-02, Holly Grove Landfill) is located on adjacent property.
- 3. The service area for the facility is Davidson County.

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- 4. Operational records for the facility are maintained at the Davidson County Integrated Solid Waste office located at 1242 Old U.S Highway 29.
- 5. Reviewed current permit, operational plans, tonnage reports and other operational records for the facility and facility components.
- 6. The facility is covered under N.C. General Storm Water Permit No. NCG120038, expiring October 2012. The facility is monitoring and reporting under the provisions of the Storm Water Permit.
- 7. The facility is covered under approved Erosion and Sedimentation Control plan. The last plan approval was in April 2007 for the Phase 2 MSW Landfill construction.
- 8. The facility has a pump and haul permit to the City of Lexington Waste Water Treatment Plant for leachate generated by the MSW Landfill operations.
- 9. Reviewed facility training records including SWANA certifications, waste screening training, and other related solid waste training.
- 10. Current SWANA certifications for all facility areas of operation include, but not limited to: Elly Barton, Landfill Operations Specialist-expires 10/01/2013; Ken Biggs, Landfill Operations Specialist-expires 10/01/2013; Keith Cecil, Landfill Operations Specialist-expires 10/01/2013; Danny Cox, Landfill Operations Specialist-expires 03/01/2014; Kim Basque, Landfill Operations Specialist-expires 11/15/2014; Jamie Jarrell, Landfill Operations Specialist-expires 10/01/13; Angela Jones, Landfill Operations Specialist-expires 03/27/2013; Jim Gilreath, Certified Landfill Manager-expires 06/10/14; Michael Lankford, Landfill Operations Specialist-expires 11/15/2014; Kenneth Moon, Landfill Operations Specialist-expires 11/15/2014; Dwight Myers, Landfill Operations Specialist-expires 11/15/2014; Mark Pierce, Landfill Operations Specialist-expires 10/01/13; Linda Riner, Landfill Operations Specialist-expires 3/01/2013; Sherri Robbins, Landfill Operations Specialist-expires 10/01/13; and Steve Swaim, Landfill Operations Specialist-expires 11/15/2014. Charlie Brushwood has completed continuing educational credits for the Certified Landfill Manager but has not yet received the certificate.
- 11. The MSW landfill permit to operate contains a condition to allow for disposal of Waste Water Treatment Plant (WWTP) sledges.
- 12. Financial assurance documentation dated October 28, 2011 was submitted to the Solid Waste Section for review.
- 13. Reviewed the approved Operations Plans (June 2011 revision) for the MSW landfills, HHW facility, and C&D landfill. Note: Suggest review of Operations Plan prior to next submittal of a permit renewal, amendment, or modification to make any needed additions and clarifications. Operations Plan review for the facility should include: Staff training program as listed in the November 9, 2009 consent agreement, facility plan/map, specifics of all facility operations and any other additions/corrections/clarifications.

Phase 1 Landfill Unit (Closed)

- 14. General MSW disposal for the Phase 1 Area was discontinued on December 16, 2008 after initial operations were commenced in the Phase 2. There was (~47,000 cubic yards) still available airspace remaining in the Phase 1 area.
- 15. The facility returned back into Phase 1 MSW Area September 22, 2009 to fill remaining air space, achieve permitted contours, and prepare crown for closure.
- 16. Completed Phase 1 disposal operations on November 18, 2009 for closure contours, establishing crown, and preparation for methane studies for a landfill gas extraction system.
- 17. November 18, 2009 should be considered "last receipt of waste" in Phase 1 for the purpose of MSW landfill closure activities.
- 18. The MSW Phase 1, Area 3, Area 2, and parts of Area 1 have previously undergone closure and approval by the Solid Waste Section.
- 19. Closure operations have been completed for the remainder of the Phase 1 landfill and closure certification documentation was submitted July 2011 (Phase 1 Area 1B) to the Solid Waste Section for review.
- 20. Periphery ditches of the landfill have been cleaned and no erosion areas were observed on the Phase 1 landfill.
- 21. The entire closed Phase 1 areas were observed found to be stable and have good vegetative cover.
- 22. Sedimentation basins well maintained and have adequate retention capacity.

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- 23. Edge of waste markers are in place on Phase 1.
- 24. A landfill gas extraction system has been installed on the Phase 1 MSW Landfill. Landfill gas is being utilized to generate electricity and the Davidson Gas Producers, Landfill Gas to Energy Plant began full operations in November 2010.
- 25. Reviewed the methane monitoring program and quarterly methane monitoring sampling results for Phase 1. The last monitoring event on December 15, 2011 detected no methane in facility structures (HHW facility, scale house, maintenance shop, recycling facility, office, white goods facility, and convenience area) and 13 landfill gas monitoring wells. The methane monitor utilized is a Multi-Rae+ rented from Geodic. The quarterly methane monitoring report included manufacturer's calibration and weather data.
- 26. Reviewed most recent semiannual surface water/ground water (15 well locations)/leachate monitoring event report conducted on September 20, 2011. The analysis of groundwater samples collected during the September sampling event reported four inorganic constitutes (cobalt, chromium, iron and vanadium) in excess of 2L groundwater standards. Elevated levels of iron and vanadium were also observed in the facility background monitoring well, indicating these constitutes are naturally occurring. There were no detectable levels of organic constitutes in any monitoring well samples.
- 27. Monitoring wells are accessible and locked.
- 28. Reviewed leachate generation records and contingency plans.
- 29. The Phase I leachate collection lagoon was observed to have adequate additional storage capacity available.
- 30. The collected leachate is pumped and hauled to the City of Lexington Waste Water Treatment Plant.
- 31. Records indicated no leachate was hauled during January 2012. During the month of December 2011 the facility hauled 174,000 gallons.

Faze 2 MSW Landfill Unit

- 32. Disposal operations began December 10, 2008 in the Phase 2, Cell 1 area.
- 33. Reviewed the methane monitoring program and quarterly methane monitoring sampling results for Phase 2. The last monitoring event on December 15, 2011 detected no methane in facility structures and 9 landfill gas monitoring locations. The methane monitor utilized is a Multi-Rae+ rented from Geotech. The methane monitoring report included manufacturer's calibration and weather data. Methane monitoring locations were documented as installed on the Phase 2 area August 2008.
- 34. Reviewed asbestos disposal program. No recent disposal of regulated asbestos has been conducted. The last disposal of regulated asbestos occurred April 30, 2009 (51 bags, 1.71 tons). The disposal locations for asbestos in the MSW landfill are maintained in a log book.
- 35. Reviewed daily cover verification logs (Conditions of July 15, 2009 Compliance Order/November 6, 2009 Consent Agreement). The daily cover verification logs document weather conditions, use of tarps as alternative cover, soil usage, and person who documented daily cover. Note: Conducting daily cover verification and maintaining logs for the MSW landfill should be included in the facility Operations Plan).
- 36. Reviewed landfill staff training plan and landfill staff training logs (Condition of July 15, 2009 Compliance Order/November 6, 2009 Consent Agreement) as included in Appendix G of the approved Operations Plan (June 2011 revision).
- 37. Reviewed leachate release prevention plan (Condition of July 15, 2009 Compliance Order/November 6, 2009 Consent Agreement as included in Appendix F of the approved Operations Plan (June 2011 revision). Reviewed weekly leachate system inspection logs and quarterly/annual training logs.
- 38. The facility contracts for a annual leachate system inspection cleaning. The most recent leachate cleaning was conducted by JetClean America on November 14, 2011.
- 39. Reviewed semiannual surface water/ground water/leachate monitoring program and most recent semiannual monitoring event report conducted on September 22, 2011. The analysis of groundwater samples collected during the March sampling event reported two inorganic constitutes cadmium and vanadium, in excess of 2L groundwater standards. The analysis concluded the inorganic levels were back ground levels. No detectable levels of organic constitutes were detected.

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- 40. The MSW Landfill is currently receiving approximately 350-400 tons per day; the MSW Landfill received 9,043 tons for the month of January 2012.
- 41. Phase 2 leachate is collected and stored in a 330,000 gallon storage tank (550,000 secondary containment area) and is hauled to the City of Lexington Waste Water Treatment Plant. At the time of the facility audit the leachate storage tank was registering 10 feet of leachate.
- 42. The Phase 2 area hauled 76,500 gallons of leachate to the waste water treatment plant during the period December 2, 2011 through January 11, 2012.
- 43. The MSW Landfill is approved for the use of tarps as an alternative daily cover as per Operations Plan and permit amendment of 5/15/02.
- 44. Reviewed random inspection program and reviewed waste screening reports. From review of completed inspection reports, 15 random inspections were conducted during the period 10/04/11- 01/25/12. Section 2.4.1 of the Operations Plan states a minimum of 1% or one per week of incoming loads are to be inspected. Note: The random inspections for the review period of 10/04/11- 01/25/12 do not meet the minimum requirements as specified in the approved operations plan (15 random inspections during 17 weeks). A modification of current random inspection scheduling should be implemented to assure minimum requirements are being met.
- 45. Edge of waste markers are in place on the Phase 2 MSW landfill (as contract specification for construction).
- 46. Observed operations at the Phase 2 MSW landfill.
- 47. Currently operating in Area 1, Cell 5.
- 48. Viewed daily cover prior to commencement of daily disposal activities on 02/02/12. Waste was effectively covered by soil and tarps from the disposal operations of the previous day.
- 49. Adequate daily soil cover observed over other previous daily disposal operations, no areas of exposed waste.
- 50. The working face was compact and well defined; the tipping deck area was well maintained and free of debris for effective ingress and egress of disposal vehicles.
- 51. Adequate compaction of incoming waste from daily operations.
- 52. Adequate intermediate soil cover over previous waste disposal areas.
- 53. Seeding has been conducted and vegetative growth has been established over intermediate soil cover areas.
- 54. Windblown materials observed to be effectively controlled and collected. The facility has constructed portable fences to be utilized as needed.
- 55. Monitoring wells accessible and locked.
- 56. No on-site or off-site erosion noted. Sedimentation basins maintained and have adequate retention capacity.

C&D Landfill

- 57. Observed operations at the C&D landfill.
- 58. The C&D landfill facility began receiving waste on December 4, 2001.
- 59. Deconstruction of mobile homes is approved by 05/15/02 Permit modification and Operations Plan approval at the C&D landfill. The most recent receipt of a mobile home and deconstruction was on 01/09/12.
- 60. The permit issuance of July 18, 2011 includes a Permit to construct for the Phase 4 area and operation of the Phase 3 area (vertical expansion).
- 61. Initial construction for Phase 4 has commenced. Sedimentation basins and erosion control measures have been established for the construction project. Note: The Permit to construct includes a condition for a preconstruction meeting to be held prior to construction (initial grading and soil moving activities).
- 62. Currently operating in the Phase 2 area.
- 63. The working face was well controlled and compacted.
- 64. Weekly soil cover and intermediate cover adequate. The facility maintains a daily operations log for the C&D Landfill including dates of soil cover. Reviewed the daily log for verification of weekly soil cover requirements.
- 65. Seeding for vegetative cover is to be conducted within two months on inactive area of the landfill.

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- 66. No on-site or off-site erosion noted.
- 67. The C&D Landfill receives approximately 20-50 of waste per day. The annual facility report for the period July 2010-June 2011 indicated 9,939.41 tons of waste disposed. During the month of January 2012 933.37 tons of waste was disposed.
- 68. The C&D Landfill is approved for, and conducts recycling activities on site consisting of metals, clean wood, cardboard and other recyclables which are placed in proper containers at the end of each day.
- 69. Observed incoming loads, all incoming waste generated from construction and demolition operations during inspection period. No prohibited waste was noted in the C&D landfill.
- 70. Reviewed random inspection program and reviewed waste screening reports. Section 2.4.1 of the Operations Plan states a minimum of 1% or one per week of incoming loads are to be inspected.
- 71. There have been 104 random inspections conducted at the C&D Landfill during the period 12/09/11-01/17/12.
- 72. All incoming loads of waste generated by the 11/16/11 Davidson County tornado and storm event are being inspected under the random inspection program to assure the C&D Landfill receives no unacceptable waste.
- 73. As of the date of the inspection approximately 470 tons of waste has been documented from the 11/16/11 tornado event.
- 74. Edge of waste markers are in place.
- 75. Reviewed semiannual monitoring program and last semiannual monitoring report for the C&D Landfill sampling event of September 21, 2011. Analysis results indicated several inorganic constitutes exceeding the NCAC 2L ground water standards. The report indicates these constitutes were naturally occurring and not indicative of impact from the landfill. No organic constituents are noted above 2L standards.
- 76. Monitoring wells were observed to be secure, accessible, and locked.
- 77. Windblown materials well controlled and collected.
- 78. The C&D landfill unit has a leachate sump system located in the northwest corner of the landfill. The system has not been accumulating leachate and has not required pumping in the 2 past year reporting period. Reviewed leachate logs for the C&D landfill unit.

Household Hazardous Waste Facility

- 79. The facility was initially permitted to operate June 22, 2001.
- 80. Reviewed HHW facility operations and procedures.
- 81. The HHW facility is open to Davidson County citizens on Wednesdays, Thursdays, and the first Saturday of each month, and by appointment for special considerations.
- 82. Delivery and processing operations are in covered areas. An emergency drain and sump is located in the delivery area for potential spills.
- 83. Review of training records indicate Mike Lankford and Elly Barton have course completion certifications including Hazardous Waste Management issued by Environmental Resource Center, August 2005, Advanced Hazardous Waste Compliance for Generators issued by the Division of Waste Management, 2001, and HAZWOPER certifications including, yearly HAZWOPER annual updates.
- 84. Reviewed HHW facility operations plan (approved June 2011 revision), contingency plans, spill prevention plans, and brochures given to the public.
- 85. Reviewed HHW facility operational records including daily receiving logs, weekly staff inspection logs, weekly inventory logs, and shipping manifests.
- 86. Reviewed HHW acceptance, identification, packing, and storing procedures.
- 87. The facility receives paints, poisons, flammable solvents, flammable solids, antifreeze, used oils, oxidizers, aerosols/compressed gas, acids, batteries, and other miscellaneous HHW waste.
- 88. The facility also accepts fluorescent lights, currently purchasing shipping boxes to ship lights to recyclers.
- 89. Collected used automotive oils are stored in a 275 gallon bulk tank and removed by U.S. Filter Company. The facility receives approximately 50-100 gallons of used oil per month.

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- 90. Used antifreeze is stored in 300 gallon bulk container, and removed by U.S. Filter.
- 91. Collected HHW at the site is packaged in 55 gallon drums/lab packs and Gaylord boxes on site and transported by Shamrock Environmental Services to Resource Recovery and Reduction (3RC) in Winston-Salem, N. C.
- 92. The most recent manifest for delivery to 3RC was January 26, 2012 containing 2,908.5 pounds of paint, flammable liquids, and aerosols in addition to 24.5 pounds of pesticides.
- 93. The annual facility report indicated the facility collected 51,766 pounds of HHW during the reporting period July 1, 2010-June 30, 2011. Used oil, batteries, and used antifreeze are maintained on separate facility logs. Note: The collection of used oil, batteries, and used antifreeze should be included on the annual facility report
- 94. Excellent documentation and records maintenance. Note: Certain items such as used oil, antifreeze, and batteries are accepted by the HHW Facility and are included in the county recycling reports and not maintained in the logs for the Annual HHW Facility Report. Recommend including the receipt of these materials in the HHW Facility documentation in addition to the county recycling reports (Not a compliance issue).
- 95. Non-hazardous latex paints are solidified on site for disposal in the MSW landfill. Other non-hazardous residues are also sent to the MSW Landfill.
- 96. The facility does not accept explosives, biohazard material, or radioactive waste.
- 97. The facility was observed to be clean and well maintained, with minimal inventory on site.

Other Facility Components

- 98. Observed operations at the small vehicle/resident waste disposal convenience and recycling area, tire collection site, household textiles recycling area, electronics recycling area, white goods collection/processing facility, scrap metal collection area, mattress and upholstered furniture processing/recycling operation, Styrofoam recycling operation, and swap shop area.
- 99. Observed operations at the material recovery facility (MRF). The picking line was in operation during the audit.
- 100. The material recovery facility processes items collected from the Davidson County recycling program and collected recyclables from Davidson County municipalities, as needed. Reviewed recent tonnage reports. The facility processes Plastics, Glass, Newspaper (ONP), Mixed paper (MPW), Cardboard (OCC), Office paper (OFP), Aluminum cans, and Steel cans.
- 101. During the period July 2010- June 2011 the MRF processed 465 tons of glass, 413 tons of plastics, 54 tons of aluminum cans, 95 tons of steel cans and 1992 tons of fiber.
- 102. In conjunction with other Davidson County recycling programs the county collects: used motor oil, antifreeze, lead acid batteries, rechargeable batteries, used oil filters, and vinyl siding.
- 103. Observed white goods collection and processing facility, and metals collection and processing areas. White goods brought in by county residents are processed at the site and have CFC's, motors, wiring, and other components removed before shipment to recyclers. The white goods and scrap metal collection facility processed approximately 88 tons of metals and connected 250 pounds of Freon during the period July 2010- June 2011.
- 104. Observed Electronics Recycling Area. Collected computers and televisions are sorted and shrink wrapped for shipment to recycle Secure in Charlotte, N.C. The trailers for shipment are supplied by recycle Secure. At the time of the inspection the electronics trailer was filled and several pallets of electronics were on the loading dock ready for shipment.
- 105. The Electronics Recycling program has been included in the Davidson County 10-Year Plan and is eligible for distributions. The county collected and processed approximately 150 tons of electronics during the past year.
- 106. The county is operating a Styrofoam collection and processing recycling program. Styrofoam is processed and compacted into 4 foot/18 pound logs.
- 107. Conducted a review of the County tire collection program.
- 108. The facility maintains a log of registered tire haulers and generators delivering tires to the site.

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- 109. Tonnage totals for received tires are listed separately for commercial generators/registered haulers, clean-ups of more than 5 tires, and from county residents of less than 5 tires.
- 110. During the month of January 2012, 123.61 tons of tires were received (99.05tons from commercial generators/tire haulers, 24.56 tons from clean-ups of 5 or more tires, and 2.19 tons from county residents with less than 5 tires).
- 111. Incoming scrap tires are placed directly into trailers by scrap tire haulers, and monitored by scale house personnel.
- 112. Reviewed recently processed tire certification forms and found to be accurate and properly signed. Excellent documentation regarding registered tire haulers, generators, and tonnage reports.
- 113. The scrap tire collection area was found to be well managed and operated.

Please contact me if you have any questions or concerns regarding this inspection report.

Phone: <u>336-771-5093</u>

Environmental Senior Specialist Regional Representative

Sent on: 02/14/12	X	Email	Hand delivery	US Mail	Certified No. [_]

Copies: Jason Watkins, District Supervisor

Shawn McKee, Compliance Officer

Mark Poindexter, Field Operations Supervisor Robert Hyatt, Davidson County Manager